

What is claimed is:

1. A clustered computer system comprising a plurality of CPU and memory installed apparatus each having at least one CPU and at least one memory, and a plurality of input/output control apparatus, said CPU and memory installed apparatus and said input/output control apparatus being connected to each other by a network.

2. A computer system comprising a plurality of CPU and memory installed apparatus each having at least one CPU and at least one memory, a plurality of input/output control apparatus, and a network connecting said CPU and memory installed apparatus and said input/output control apparatus to each other, each of said CPU and memory installed apparatus having communication means for transmitting an input/output instruction issued by said CPU of an own CPU and memory installed apparatus to said input/output control apparatus assigned in advance to the own CPU and memory installed apparatus via said network, and receiving a response from said input/output control apparatus via said network, and each of said input/output control apparatus having communication means for receiving an input/output instruction from said CPU and memory installed apparatus assigned in advance to an own input/output control apparatus via said network, and transmitting a response to said input/output

instruction to said CPU and memory installed apparatus  
via said network.

3. A computer system according to claim 2,  
5 wherein said communication means of each of said in-  
put/output control apparatus comprises means for receiv-  
ing an input/output instruction as being effective only  
when the source of the input/output instruction received  
via said network is a CPU and memory installed apparatus  
10 which has been set in advance.

4. A computer system according to claim 2,  
wherein said communication means of each of said CPU and  
memory installed apparatus comprises means for receiving  
15 a response as being effective only when the source of the  
response received via said network is an input/output  
control apparatus which has been set in advance.

5. A computer system according to claim 2,  
20 wherein said network is also used for communications be-  
tween said plurality of CPU and memory installed appa-  
tus.

6. A computer system according to claim 3,  
25 wherein said communication means of each of said CPU and  
memory installed apparatus comprises means for receiving

a response as being effective only when the source of the response received via said network is an input/output control apparatus which has been set in advance.

5           7.    A computer system according to claim 5,  
wherein said communication means of each of said CPU and  
memory installed apparatus comprises means for communi-  
cating with other CPU and memory installed apparatus via  
said network.

10           8.    A computer system according to claim 7,  
wherein the communications between said plurality of CPU  
and memory installed apparatus are communications for ac-  
cessing memories installed on other CPU and memory in-  
15 stalled apparatus.

20           9.    A computer system according to claim 2, fur-  
ther comprising means for, when either one of said CPU  
and memory installed apparatus fails to operate due to a  
fault, assigning said input/output control apparatus  
which has been used by the faulty CPU and memory in-  
stalled apparatus to another normal CPU and memory in-  
stalled apparatus hereby to continue system operation.

25           10.   A computer system according to claim 9,  
wherein an active one of the CPU and memory installed ap-

paratus which is using another input/output control apparatus is used as said other normal CPU and memory installed apparatus.

5        11. A computer system according to claim 9, further comprising a backup CPU and memory installed apparatus, said backup CPU and memory installed apparatus being used as said other normal CPU and memory installed apparatus.

10        12. A computer system according to claim 2, further comprising at least one backup input/output control apparatus, and means for, when either active one of said input/output control apparatus fails to operate due to a  
15        fault, assigning said backup input/output control apparatus to said CPU and memory installed apparatus which has been using the faulty input/output control apparatus thereby to continue system operation.

20        13. A computer system comprising a CPU and memory installed apparatus having at least one CPU and at least one memory, an input/output control apparatus, and a communication cable connecting said CPU and memory installed apparatus and said input/output control apparatus to each  
25        other, said CPU and memory installed apparatus having communication means for transmitting an input/output in-

struction issued by said CPU to said input/output control apparatus via said communication cable, and receiving a response from said input/output control apparatus via said communication cable, and said input/output control apparatus having communication means for receiving an input/output instruction from said CPU and memory installed apparatus via said communication cable, and transmitting a response to said input/output instruction to said CPU and memory installed apparatus via said communication cable.

14. A CPU and memory installed apparatus comprising at least one CPU and at least one memory, communication means for communicating with an external circuit, transmitting an input/output instruction issued by said CPU to an input/output control apparatus which has been assigned in advance, and receiving a response from said input/output control apparatus, and a single board on which said CPU, said memory, and said communication means are mounted.

15. A CPU and memory installed apparatus according to claim 14, wherein said communication means has means for receiving said response as being effective only when the source of the received response is the input/output control apparatus which has been assigned in advance.

16. An input/output control apparatus comprising  
an input/output control circuit for controlling a periph-  
eral device based on an input/output instruction, commu-  
5 nication means for communicating with an external cir-  
cuit, receiving an input/output instruction from a CPU  
and memory installed apparatus which has been set in ad-  
vance and transferring said input/output instruction to  
said input/output control circuit, and transmitting a re-  
10 sponse to said input/output instruction to said CPU and  
memory installed apparatus.

17. An input/output control apparatus according to  
claim 16, wherein said communication means has means for  
15 receiving said input/output instruction as being effec-  
tive only when the source of the received input/output  
instruction is the CPU and memory installed apparatus  
which has been set in advance.